

Claims

We claim:

- 5 1. A method of controlling Dipteran larvae comprising the step of introducing a larvicidally-effective amount of a combination of a strain of *Bacillus thuringiensis* subspecies *israelensis* and a strain of *Bacillus sphaericus* into an environment containing Dipteran larvae.
- 10 2. The method of claim 1 wherein said strain of *Bacillus thuringiensis* subspecies *israelensis* is non-genetically modified.
3. The method of claim 1 wherein said strain of *Bacillus sphaericus* is non-genetically modified.
- 15 4. The method of claim 1 wherein said strain of *Bacillus thuringiensis* subspecies *israelensis* is non-genetically modified and said strain of *Bacillus sphaericus* is non-genetically modified.
- 20 5. The method of claim 1 wherein said combination has from about 1:10 to about 10:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.
- 25 6. The method of claim 1 wherein said combination has from about 1:3 to about 3:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.
- 30 7. The method of claim 1 wherein said combination has from about 1:2 to about 2:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

8. The method of claim 1 wherein said combination has a 1:1 ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

5 9. The method of claim 1 wherein said Dipteran is a mosquito.

10 10. The method of claim 9 wherein said mosquito is selected from the group consisting of *Culex pipiens*, *Culex quinquefasciatus*, *Aedes aegypti*, *Culex tarsalis*, *Culiseta incidens*, *Anopheles freeborni* and combinations thereof.

15 11. A method for inhibiting larvicidal resistance in Diptera comprising the step of introducing a larvicidally-effective amount of a combination of a strain of *Bacillus thuringiensis* subspecies *israelensis* and a strain of *Bacillus sphaericus* into an environment containing Dipteran larvae.

20 12. The method of claim 11 wherein said strain of *Bacillus thuringiensis* subspecies *israelensis* is non-genetically modified.

25 13. The method of claim 11 wherein said strain of *Bacillus sphaericus* is non-genetically modified.

30 14. The method of claim 11 wherein said strain of *Bacillus thuringiensis* subspecies *israelensis* is non-genetically modified and said strain of *Bacillus sphaericus* is non-genetically modified.

15. The method of claim 11 wherein said combination has from about 1:10 to about 10:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

16. The method of claim 11 wherein said combination has from about 1:3 to about 3:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

5 17. The method of claim 11 wherein said combination has from about 1:2 to about 2:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

10 18. The method of claim 11 wherein said combination has a 1:1 ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

19. The method of claim 11 wherein said Diptera is *Culex*.

15 20. The method of claim 11 wherein larvicidal resistance is developed against *Bacillus sphaericus*.

21. The method of claim 11 wherein said Diptera is a mosquito.

20 22. The method of claim 21 wherein said mosquito is selected from the group consisting of *Culex pipiens*, *Culex quinquefasciatus*, *Aedes aegypti*, *Culex tarsalis*, *Culiseta incidens*, *Anopheles freeborni* and combinations thereof.

25 23. A composition comprising:
a combination of a strain of *Bacillus thuringiensis* subspecies *israelensis* and a strain of *Bacillus sphaericus*.

30 24. The composition of claim 23 wherein said strain of *Bacillus thuringiensis* subspecies *israelensis* is non-genetically modified.

25. The composition of claim 23 wherein said strain of *Bacillus sphaericus* is non-genetically modified.

26. The composition of claim 23 wherein said strain of *Bacillus thuringiensis* subspecies *israelensis* is non-genetically modified and said strain of *Bacillus sphaericus* is non-genetically modified.

5

27. The composition of claim 23 wherein said combination has from about 1:10 to about 10:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

10

28. The composition of claim 23 wherein said combination has from about 1:3 to about 3:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

15

29. The composition of claim 23 wherein said combination has from about 1:2 to about 2:1 weight ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

20

30. The composition of claim 23 wherein said combination has a 1:1 ratio of *Bacillus thuringiensis* subspecies *israelensis* to *Bacillus sphaericus*.

25

31. The composition of claim 23 further comprising an additional component selected from the group consisting of a surface active agent, an inert carrier, a preservative, a humectant, a feeding stimulant, an attractant, an encapsulating agent, a binder, an emulsifier, a dye, a U.V. protectant, a buffer, a drift control agent, a spray deposition aid, a free-flow agent and combinations thereof.

30

32. The composition of claim 23 wherein slurries of both strains are spray dried.

33. The composition of claim 32 wherein the slurries are spray dried separately.

34. The composition of claim 32 wherein the slurries are mixed together and the mixture is spray dried.

5

10

15

20

25

30